

K-5 STEM Standards Checklist  
(Draft)

**Literacy Standards - Reading**

**Key Ideas & Details**

- ☐ 1. Read closely; cite specific textual evidence ...
- ☐ 2. Determine central ideas of a text & analyze their development; summarize the key supporting details and ideas
- ☐ 3. Analyze how and why ideas develop & interact over the course of a text

**Craft and Structure**

- ☐ 4. Interpret words & phrases as they are used in text..
- ☐ 5. Analyze the structure of texts ...
- ☐ 6. Assess how point of view or purpose shapes the content and style of a text.

**Integration of Knowledge and Ideas**

- ☐ 7. Integrate and evaluate content presented in diverse media and formats ...
- ☐ 8. Delineate and evaluate the argument and specific claims in a text ...
- ☐ 9. Analyze how two or more texts address similar themes or topics ...

**Range of Reading & Level of Text Complexity**

- ☐ 10. Read and comprehend science /technical texts at grade level independently and proficiently

**Literacy Standards - Writing**

**Text Types and Purposes**

- ☐ 1. Write arguments focused on content
- ☐ 2. Write informative/explanatory texts

**Production & Distribution of Writing**

- ☐ 4. Produce clear and coherent writing
- ☐ 5. Develop and strengthen writing
- ☐ 6. Use technology to produce and publish writing

**Research to Build and Present Knowledge**

- ☐ 7. Conduct short research projects to answer a question
- ☐ 8. Gather relevant information from multiple print and digital sources
- ☐ 9. Draw evidence from informational texts to support analysis, reflection and research

**Range of Writing**

- ☐ 10. Write routinely over extended and shorter time frames.

**Standards for Technological Literacy**

**Develop an understanding of the:**

- ☐ 1: characteristics & scope of technology
- ☐ 2: core concepts of technology
- ☐ 3: relationships among technologies and the connections between technology & other fields of study.
- ☐ 4: cultural, social, economic, & political effects of technology.
- ☐ 5: effects of technology on the environment
- ☐ 6: role of society in the development and use of technology.
- ☐ 7: influence of technology on history
- ☐ 8: attributes of design.
- ☐ 9: engineering design.
- ☐ 10: role of troubleshooting, research & development, invention & innovation, & experimentation in problem solving

**Develop abilities to:**

- ☐ 11: apply the design process.
- ☐ 12: use & maintain technological products & systems.
- ☐ 13: assess the impact of products & systems.

**Develop an understanding of & be able to select & use:**

- ☐ 14: medical technologies.
- ☐ 15: agricultural & related biotechnologies.
- ☐ 16: energy & power technologies.
- ☐ 17: information & communication technologies.
- ☐ 18: transportation technologies.
- ☐ 19: manufacturing technologies.
- ☐ 20: construction technologies.

**Science Standards**

**K-2: Standard 1: Skills & Processes**

- ☐ A1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.
- ☐ B1. People are more likely to believe your ideas if you can give good reasons for them.
- ☐ C1. Ask “How do you know?” in appropriate situations and attempt reasonable answers when others ask the same question
- ☐ D1. Design and make things with simple tools and a variety of materials
- ☐ D2. Practice identifying the parts of things and how one part connects to and affects another.
- ☐ D3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.

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**Standards for Mathematics Practices**

- ☐ 1 Make sense of problems & persevere in solving them
- ☐ 2 Reason abstractly & quantitatively
- ☐ 3 Construct viable arguments & critique reasoning of others
- ☐ 4 Model with mathematics
- ☐ 5 Use appropriate tools strategically
- ☐ 6 Attend to precision
- ☐ 7 Look for & make use of structure
- ☐ 8 Look for & express regularity in repeated reasoning

**3 -5: Standard 1: Skills & Processes**

- ☐ A1. Gather and question data from many different forms of scientific investigations
- ☐ B1. Seek better reasons for believing something
- ☐ C1. Recognize that clear communication is an essential part of doing science
- ☐ D. Design and Systems: Develop designs and analyze the products
- ☐ D. Designed Systems: Investigate a variety of mechanical systems and analyze the relationship among the parts..
- ☐ D. Making Models: Examine and modify models and discuss their limitations.

Jennifer Aydelotte  
North Hagerstown High School  
Washington County Public Schools

Charlotte Trout  
Secondary Science CIS  
Washington County Public Schools